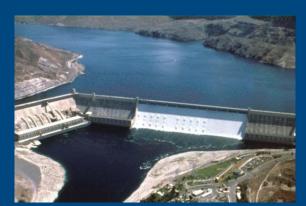


# Bonneville Power Administration Overview

As of March 14, 2016



**Grand Coulee Dam** 



**High Voltage Transmission** 



**Columbia Generating Station** 



Moody's: Aa1/Stable

S&P: AA-/Stable

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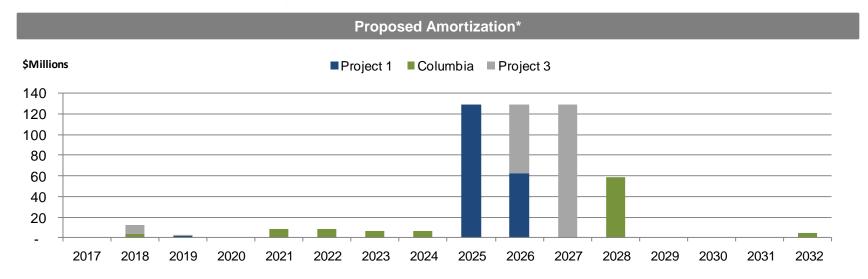
This investor presentation you are about to view is provided as of March 14, 2016. If you are viewing this presentation after March 14, 2016, there may have been events that occurred subsequent to such date that would have a material adverse effect on the financial information that is presented herein, and BPA has not undertaken any obligation to update this investor presentation.

This investor presentation contains statements which, to the extent they are not recitations of historical fact, may constitute "forward-looking statements." In this respect, the words "estimate," "project," "anticipate," "expect," "intend," "believe" and similar expressions are intended to identify forward-looking statements. A number of important factors affecting BPA's business and financial results could cause actual results to differ materially from those stated in the forward-looking statements.

Bonds supported by BPA's financial obligations and the obligations of BPA providing such support are not nor shall they be construed to be general obligations of the United States of America nor are such bonds or obligations intended to be or are they secured by the full faith and credit of the United States of America.

### Energy Northwest 2016AB Financing Summary

Project 1		Columbia Generating Station		Project 3	
2016A (Tax-Exempt)	\$192,085,000*	2016A (Tax-Exempt)	\$95,485,000*	2016A (Tax-Exempt)	\$200,705,000*
2016B (Taxable)	\$1,280,000*	2016B (Taxable)	\$2,245,000*	2016B (Taxable)	\$5,350,000*
Pricing Date*	March 23, 2016	Pricing Date*	March 23, 2016	Pricing Date*	March 23, 2016
Settlement Date*	April 20, 2016	Settlement Date*	April 20, 2016	Settlement Date*	April 20, 2016
Optional Redemption TBD		Optional Redemption	TBD	Optional Redemption	TBD
Ratings	Aa1 / AA- / AA	Ratings	Aa1 / AA- / AA	Ratings	Aa1 / AA- / AA



#### **Overview**



Columbia River

#### **BPA** at a Glance

#### One Agency with Two Business Units

- Power Services and Transmission Services revenues exceeded \$3.3 billion in aggregate in FY2015
- BPA's customers primarily include utilities throughout the Pacific Northwest

#### Unique Hydro-Based System

- Virtually carbon-free BPA markets power from 31 federally-owned hydroelectric projects and several Non-Federal projects (including Energy Northwest's Columbia Generating Station)
- Provides stability, flexibility and reliability to meet electric demands with limited fuel risk

#### Available Funding Sources

- Revolving authority to borrow up to \$7.7 billion from the U.S. Treasury (\$3.1 billion available at 9/30/2015)
- Non-Federal Debt (including Energy Northwest) is approximately half of BPA's total debt

#### **Cost Recovery**

- BPA is required by law to establish rates to recover all costs
- FERC reviews and approves rates on the basis that BPA rates recover all costs

## Non-Federal Payment Priority and Financial Reserves

- Cash payments and financial credits by BPA for Non-Federal Debt are met before payments by BPA to the U.S. Treasury; Non-Federal Debt coverage has exceeded 2.0x
- BPA maintains substantial cash and investments available for risk. When combined with a \$750M U.S. Treasury line of credit, there were 347 days of liquidity on hand as of 9/30/2015

#### One BPA -Two Business Units

#### **Power Services**

- Primarily serves over 125 Preference Customer utilities and several federal agencies under long-term contracts through 2028
- BPA accounts for about one-third of the electric power consumed within the Region
- Approximately \$2.4 billion in sales (FY15)

#### **Transmission Services**

- Delivers power between resources and loads within the Region and transmits imports to and exports from the Region
- 75% of the bulk transmission capacity in the Region
- 15,000 circuit miles of high voltage transmission lines and 259 substations and other facilities
- Approximately \$903 million in sales (FY15)

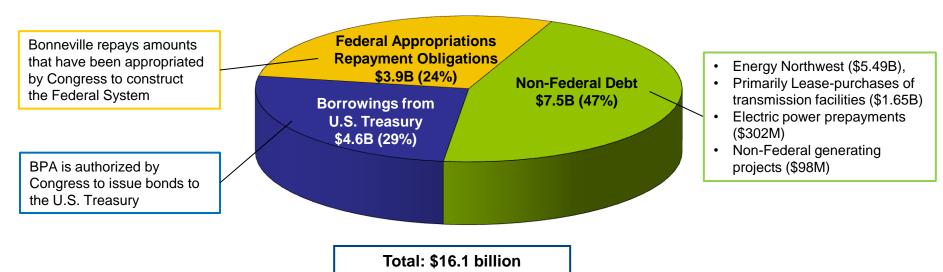
#### **Top Customers by Business Unit**

Power Services Top 5 Customers (FY1	15)	Transmission Services Top 5 Customers (FY15)		
	Approximate %		Approximate %	
Customer Name	of Sales*	Customer Name	of Sales*	
Snohomish County PUD No. 1 (Preference)	9%	PacifiCorp (IOU)	12%	
Cowlitz County PUD No. 1 (Preference)	7%	Puget Sound Energy Inc. (IOU)	12%	
City of Seattle, City Light Dep't (Preference)	7%	Portland General Electric Company (IOU)	9%	
Pacific Northwest Generating Cooperative (Preference)	6%	Powerex Corp. (Power Marketer)	6%	
Tacoma Power (Preference)	5%	City of Seattle, City Light Dep't (Preference)	5%	
Total	34%	Total	44%	

#### Sources of Capital

- Revolving authority (\$7.7 billion in aggregate) to borrow from the U.S. Treasury
- To assist in meeting capital program needs, BPA makes financial commitments that secure the debt service on debt instruments issued by third parties. BPA refers to these instruments as "Non-Federal Debt"
  - A third party issues debt instruments that are payable from amounts (cash and/or monetary credits) provided by BPA under agreements under which BPA obtains the use or benefit of the facilities so financed:
    - Nuclear project capability net billing agreements (Energy Northwest)
    - Transmission facility lease-purchase agreements (e.g., Port of Morrow, IERA)
    - Power and conservation resource acquisition agreements (e.g., Lewis County PUD)
- In FY13, BPA also received \$340 million in aggregate from four customers as prepayments for future deliveries of electric power to those customers (also included as Non-Federal Debt)

#### Federal and Non-Federal Debt Outstanding as of September 30, 2015



#### Order in Which BPA's Costs Are Met

- BPA has numerous financial commitments to meet obligations to Non-Federal entities. These obligations include meeting the debt service on Non-Federal Debt
- BPA's payments (and monetary credits in the case of Energy Northwest bonds and power prepayments by Preference Customers) to Non-Federal entities are met prior to all of BPA's payments to the U.S. Treasury
- All BPA funds are available to meet Non-Federal costs including debt service costs for Non-Federal Debt
- BPA-supported debt rated Aa1 (Moody's) / AA- (S&P) / AA (Fitch)

#### Payments/Credits other than to the U.S. Treasury

- Non-Federal Debt Service e.g., Energy Northwest & Port of Morrow
- BPA O&M Expenses
- Other (No priority implied among Non-Federal payments)

#### **U.S. Treasury Payments**

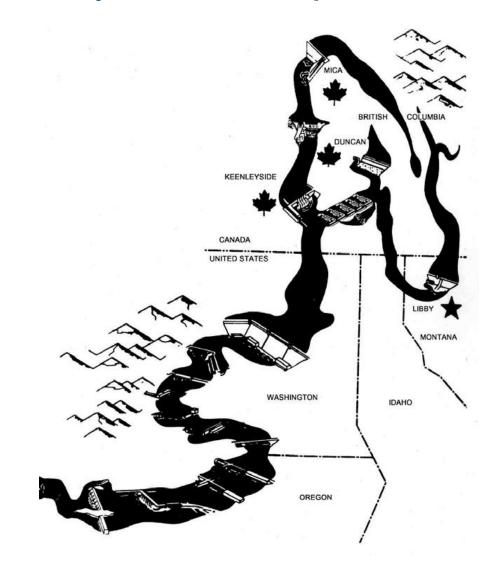
- Principal and interest on bonds BPA issues to the U.S. Treasury
- Principal and interest to repay federal appropriations that funded capital investments in the Federal System

(Not to scale)

BPA's total scheduled payments of \$662 million to the U.S. Treasury were made on time and in full in FY15--32<sup>nd</sup> consecutive year of full and timely payments to the U.S. Treasury. In FY15 BPA also prepaid \$229 million of high interest federal appropriations repayment obligations

### The Federal Hydro System is Expansive

- The Columbia River Basin has the most hydropower capacity in the U.S. and second most in North America
- Geographic footprint of the Federal Hydro System covers numerous distinct watersheds
- Storage at Canadian and U.S. dams provides BPA the ability to manage hydro for power production, reliability, to meet load, and other purposes
- The substantial storage capacity and the hydro generation facilities provide flexibility to meet system loads and stability to respond to unforeseen events

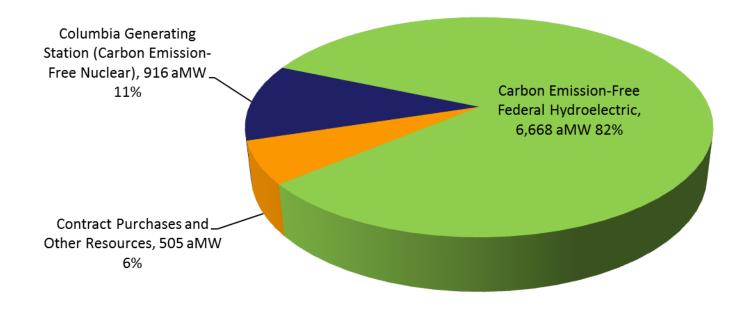


### Virtually Emission-Free Assured Fuel Supply

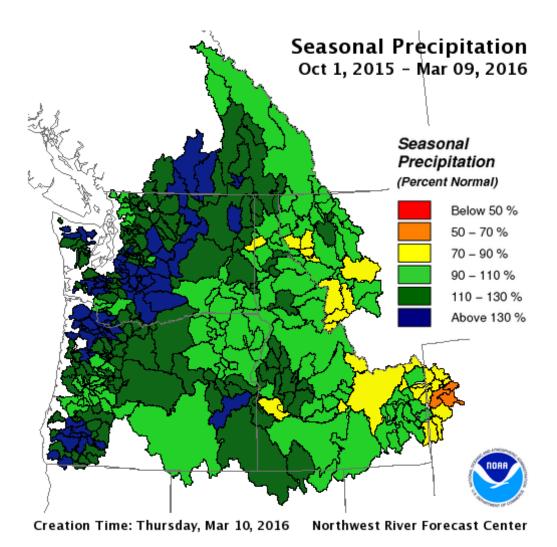
- Firm Energy capability is 8,089 aMW, 82 percent of which is Firm Energy from hydro
- Firm energy is the estimated amount of energy to be produced by the Federal System assuming historically low water conditions. The fuel supply (streamflow) and generating capability for Firm Energy from Federal System hydro have a high probability of occurring from year to year
- 93 percent of Federal System Firm Energy is hydro- and nuclear- based and is Carbon Emission-Free

#### **Federal System Power Resources**

Annual Average Megawatts (8,089 total) of Energy for Operating Year\* 2017 assuming 1937 Low Water Conditions (Firm Water)



### Seasonal Surplus (Net Secondary) Sales



- The amount of energy produced by the hydroelectric system above Firm Energy is seasonal surplus/ net secondary energy
- As opposed to firm energy, seasonal surplus/secondary energy varies with annual precipitation and weather conditions
- Under average water conditions this amount is estimated to be 1,595 aMW (Operating Year 2017)
- Expected sales of seasonal surplus/secondary is an important part of BPA's ratemaking and risk mitigation
- For the current rate period, BPA assumed that revenues from net secondary sales would average about \$335 million per fiscal year. BPA's risk modeling indicated that such revenues could range between \$50 million (low water low prices) and \$671 million (high water high prices). This high and low are each associated with a 1 in 100 event
  - For reference, \$335 million is approximately 10 percent of BPA's total revenues of \$3.3 billion (FY 2015)

### **BPA Key Credit Highlights**



**Bonneville Dam** 



John Day Dam



The Dalles Dam

### **Cost Recovery**

1.	Organic Statutes	BPA is required by law to establish rates that recover <b>all</b> of its costs, including amounts for Non-Federal Debt and lower payment priority Federal Debt
2.	Rate Case Every Two Years	<ul> <li>BPA's rate process ensures a thorough basis for proposed rates. BPA has elected to conduct a rate case every two years</li> <li>Transparency and customer involvement are fundamental goals</li> <li>To assure repayment, BPA's rates are established to achieve at least a 95% Treasury Payment Probability over the two year rate period</li> </ul>
3.	FERC Ensures Rates are Adequate	FERC reviews rates primarily to ensure they are sufficient to recover costs
4.	Cost Recovery Obligation is Carried Forward	Under its cost recovery obligation, if BPA were unable to meet all of its costs in a period because its rates (together with its financial reserves) were insufficient, BPA would be required to recover the un-met costs in future rates

### How BPA Manages Reserves

- Total Financial Reserves are cash and readilyliquidated U.S. Treasury securities held in BPA's account at the U.S. Treasury together with the ability to borrow on short notice for limited amounts of capital costs that BPA theretofore funded with cash (deferred borrowing)
- As of 9/30/2015, BPA had \$845 million in Reserves Available for Risk (RAR) and a \$750 million short-term line of credit with the U.S. Treasury (no outstanding balance as of 9/30/2015)
  - RAR is a financial metric BPA uses as a measure of accumulated financial reserves derived from operations
- BPA forecasts that it will finish the fiscal year with RAR of \$627 million

Year-End BPA Financial Reserves (\$millions)							
	Re	eserves	U.S	. Treasury	Days		
Fiscal	Available		Line of		Liquidity on		
Year	for Risk		Credit		Hand*		
2011	\$	747	\$	750	329		
2012	\$	704	\$	750	319		
2013	\$	641	\$	750	303		
2014	\$	784	\$	750	317		
2015	\$	845	\$	750	347		

 BPA sets rates every two years, and will set higher rates (for the relevant business line) to generate additional RAR when needed to meet BPA's 95% Treasury Payment Probability standard

BPA's Reserves Available for Risk combined with U.S. Treasury line of credit provided 347 days liquidity on hand at the end of FY15

### Additional Non-Federal Obligation Assurance

1.	Overnight Access to Treasury	BPA has overnight access to a \$750 million line of credit with the U.S. Treasury
2.	Cost Recovery Adjustment Clause	BPA rates include provisions to increase Power Services' rate levels to obtain up to \$300 million per year in additional revenues within the rate period without undertaking a formal rate process
3.	Fish & Wildlife Adjustment	BPA rates include provisions to increase Power Services' rate levels within a rate period to recover adverse cost impacts arising from the Endangered Species Act litigation
4.	Expedited Rate Case	BPA may initiate, and believes it would be able to complete within 6 months, an expedited rate case to propose increased rates to recover costs
5.	Defer Treasury Payment	By law, BPA must defer its U.S. Treasury payments to meet Non-Federal obligations

### Financial Coverage<sup>1</sup>

(\$millions)		FY2013	FY2014	FY2015
1	Total Operating Revenue	\$3,346	\$3,600	\$3,404
2	Less Operating Expense <sup>2</sup>	1,654	1,744	1,654
3	Net Funds Available for Debt Service	1,693	1,856	1,750
4	Non-Federal Debt Service	775	425	306
5	Non-Federal Debt Service Coverage Ratio <sup>3</sup>	2.2x	4.4x	5.7x
6	Total Debt Service	1,268	1,220	1,005
7	Total Debt Service Coverage Ratio <sup>4</sup>	1.3x	1.5x	1.7x
8	Annual Treasury Payments <sup>5</sup>	692	991	891

<sup>&</sup>lt;sup>1</sup>This information is presented in more detail in Official Statements for Non-Federal Debt bond issuances. BPA's audited financial statements do not include a similar table.

<sup>&</sup>lt;sup>2</sup>Operating Expense as presented in this table is not consistent with that presented in BPA's audited financial statements. For example, this table excludes Nonfederal projects expense, depreciation and amortization, and certain expenses related to the Corps and Reclamation.

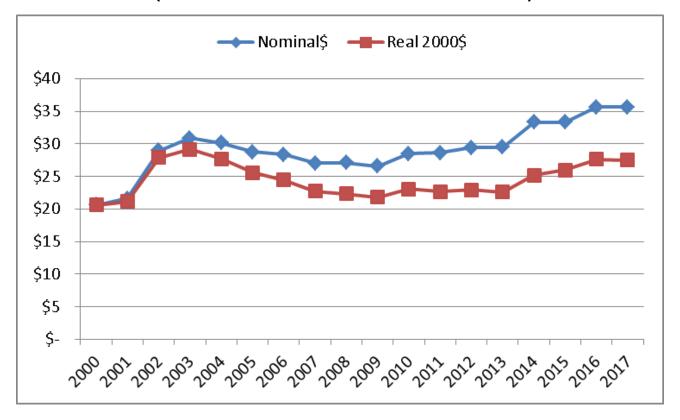
<sup>&</sup>lt;sup>3</sup>Non-Federal Debt Service Coverage Ratios increased in Fiscal Years 2014 and 2015 due to Non-Federal Debt management actions (described hereinafter under Regional Cooperation Debt). These actions enabled BPA to prepay additional high-interest federal appropriations repayment obligations.

<sup>&</sup>lt;sup>4</sup>Total Debt Service Coverage Ratios increased in Fiscal Years 2014 and 2015 due to Non-Federal Debt management actions (described hereinafter under Regional Cooperation Debt). These actions enabled BPA to prepay additional high-interest federal appropriations repayment obligations.

<sup>&</sup>lt;sup>5</sup>Annual Treasury Payments include scheduled payments, and in Fiscal Years 2014 and 2015 include prepayments enabled by Non-Federal Debt management actions (described hereinafter under Regional Cooperation Debt).

#### **Historical BPA Power Rates**

Average Rates for Power Sold to Preference Customers & Federal Agencies (Excludes Associated Transmission Costs)

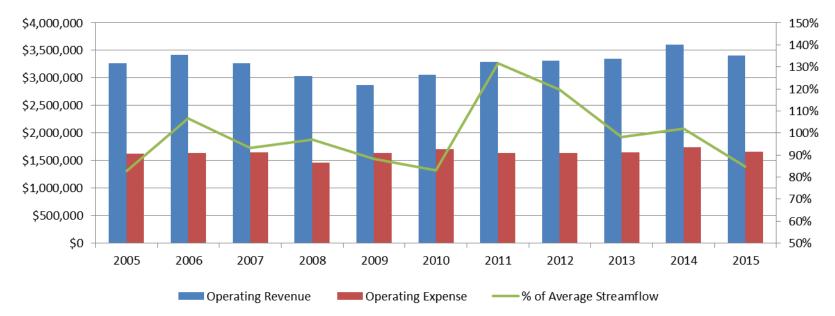


- BPA power rates have remained relatively stable, especially on an inflation-adjusted basis
- BPA implemented a significant rate increase when needed in 2002 following the 2001 West Coast Power Crisis

#### Revenues & Expenses More Stable than Streamflow

- The relationship of operating revenues to operating expenses has been stable relative to wide variances in stream-flows and hydro-generation. Much of this stability in revenues is attributable to the high proportion of power revenues that BPA derives from sales of firm power. Firm power is power produced by the Federal System under assumptions of historically low water conditions
- BPA has recovered all of its costs, including all scheduled payments to the U.S. Treasury, on time and in full for the last 32 years
- FY 2016 water supply for the Columbia River basin is forecast to be approximately 101% of the 30year average as of March 7, 2016

#### BPA Operating Revenues and Expenses (\$millions) Comparison to Streamflow (% of Average\*)



<sup>\*</sup> Average of 133 Million Acre Feet (MAF) at The Dalles Dam. Streamflow reflects BPA's operating year results (August 1-July 31) and financial results reflect BPA's fiscal year (October 1-September 30)

#### **BPA Finance Plan**



**Bonneville Headquarters** 



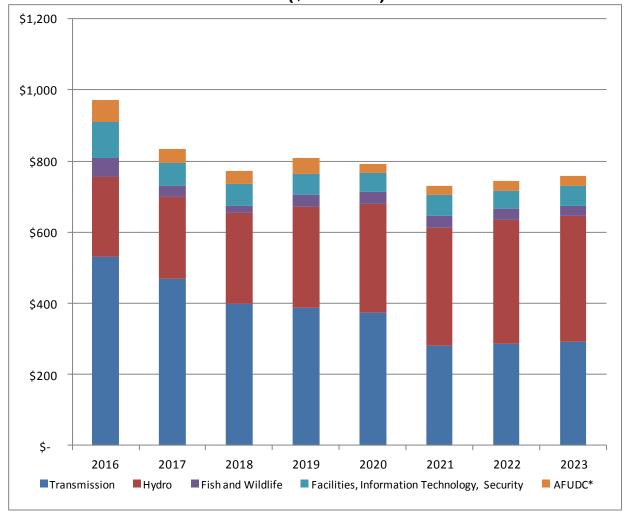
**Celilo Converter Station Transformer** 



**Big Eddy-Knight River Crossing** 

### BPA Capital Plan and Financing Strategy

### Proposed Capital Investment (\$ millions)



- BPA has substantial capital needs and is in the process of updating its proposed capital investment plan
- BPA supplements its federal borrowings with Non-Federal Debt
- BPA will continue to assess tools available to fund these investments
- Strategy includes additional Federal and Non-Federal Debt (publicly-offered bonds issued by Energy Northwest, Port of Morrow, and others)

### Non-Federal Debt - Energy Northwest

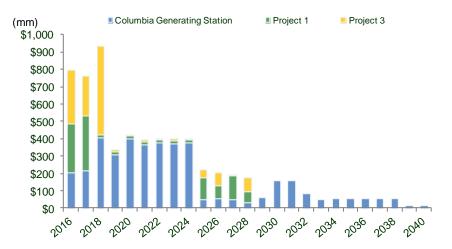
Bonds supported by BPA are not general obligations of the United States of America and are not secured by the full faith and credit of the United States of America



- Washington state Joint Operating Agency
- Owns/operates Columbia Generating Station
- \$5.49 billion in BPA-supported debt outstanding as of 9/30/2015
  - Columbia Generating Station (operating)
  - Project 1 (terminated)
  - Project 3 (terminated)

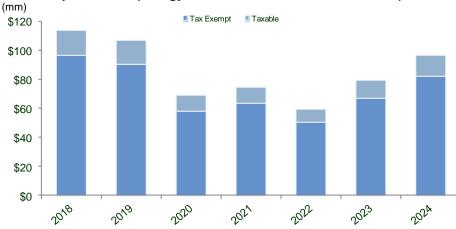
- Interest on most Energy Northwest debt is exempt from federal income tax
  - \$3.92 billion tax-exempt
  - \$1.57 billion taxable
- BPA expects that Energy Northwest will debt finance 100% of new capital needs at Columbia Generating Station in addition to refinancing and/or extending certain debt

#### BPA-Supported Energy Northwest Debt Service\*



\*Debt service is shown net of certain forward sales of uranium fuel that was purchased with bond proceeds.

#### Expected Public Bond Issuances for Columbia Project New Capital Needs (Energy Northwest Fiscal Years 2018-2024)



\*Columbia Capital needs for FY2016/2017 have been funded

#### Regional Cooperation Debt

- In 2014, BPA and Energy Northwest identified "Regional Cooperation Debt" (RCD) as an integrated debt management approach that can provide substantial benefits to the Region's ratepayers
  - Under RCD, Energy Northwest issues refunding bonds to extend the average weighted maturities of outstanding bonds to match more closely the originally expected useful lives of the financed facilities
- RCD maturity extensions free up BPA revenues primarily to:
  - Prepay higher interest federal appropriations repayment obligations
  - Restore BPA's available U.S. Treasury borrowing capacity by reducing the outstanding principal amounts of bonds issued by BPA to the U.S. Treasury
  - This program will not increase the aggregate long-term BPA debt outstanding or its aggregate average weighted maturity
- BPA believes that after the Series 2016 Bonds are issued, additional RCD issuances could exceed \$2.8 billion (excludes new money issuances for the Columbia Generating Station)

#### **RCD Intra-Year Cash Management**

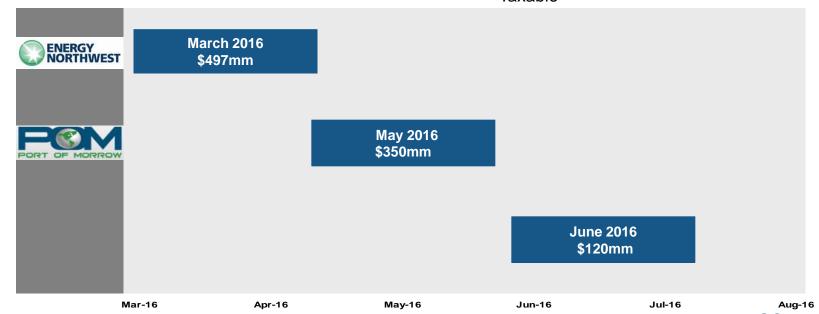
- Energy Northwest recently entered into a \$300 million line of credit to manage RCD and intra-year cash flows between BPA and Energy Northwest
- The line of credit is being used to pay operating expenses and interim interest payments of Energy Northwest, allowing for earlier redemption of higher interest federal appropriations repayment obligations
- This will result in \$14 million of additional savings to BPA in fiscal year 2017
- Similar opportunities may be available in future years depending on interest rate environments, subject to Energy Northwest Executive Board approval

### Expected BPA-Supported Bond Offerings\*

(subject to change)

- Regional Cooperation Debt /Energy Northwest
  - March 23, 2016 Pricing
  - Estimated amount \$497 million
  - Tax-Exempt and Taxable

- Transmission Lease-Purchase
  - Port of Morrow
  - May 2016 Pricing
  - Estimated amount \$350 million
  - Taxable
- Transmission Lease-Purchase
  - Issuer to be determined
  - June 2016 Pricing
  - Estimated amount \$120 million
  - Taxable



\*Bonds supported by BPA are not general obligations of the United States of America and are not secured by the full faith and credit of the United States of America.

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http://www.bpa.gov/goto/investors